# 2019 Current Fiscal Year Report: Advisory Committee for the World Radiocommunication Conference

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1. Department or Agency 2. Fiscal Year

Federal Communications Commission 2019

3b. GSA Committee

3. Committee or Subcommittee

Advisory Committee for the World Radiocommunication

Conference

1895

4. Is this New During Fiscal 5. Current 6. Expected Renewal 7. Expected Term

Year? Charter Date Date

No 04/06/2018 04/06/2020

8a. Was Terminated During 8b. Specific Termination 8c. Actual Term

FiscalYear? Authority Date

No Agency decision

9. Agency Recommendation for Next10a. Legislation Req to 10b. Legislation

FiscalYear Terminate? Pending?

Continue No Not Applicable

**11. Establishment Authority** Agency Authority

12. Specific Establishment 13. Effective 14. Committee 14c.

Authority Date Type Presidential?

Agency decision 01/08/1999 Continuing No

**15. Description of Committee** Other Committee

**16a. Total Number of** No Reports for this

**Reports** FiscalYear

17a. Open 1 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 1 Meetings and Dates

Purpose Start End

To consider status reports and recommendations from its Informal Working Groups (IWG) concerning preparation for the 2019 World Radiocommunication Conference (WRC-19).

10/01/2018 - 10/01/2018

Number of Committee Meetings Listed: 1

	Current FY	Next FY
18a(1). Personnel Pmts to Non-Federal Members	\$0.00	\$0.00
18a(2). Personnel Pmts to Federal Members	\$0.00	\$0.00
18a(3). Personnel Pmts to Federal Staff	\$0.00	\$0.00
18a(4). Personnel Pmts to Non-Member Consultants	\$0.00	\$0.00
18b(1). Travel and Per Diem to Non-Federal Members	\$0.00	\$0.00
18b(2). Travel and Per Diem to Federal Members	\$0.00	\$0.00
18b(3). Travel and Per Diem to Federal Staff	\$0.00	\$0.00

18b(4). Travel and Per Diem to Non-member Consultants	\$0.00	\$0.00
18c. Other(rents,user charges, graphics, printing, mail, etc.)	\$0.00	\$0.00
18d. Total	\$0.00	\$0.00
19. Federal Staff Support Years (FTE)	0.00	0.00

## 20a. How does the Committee accomplish its purpose?

The Committee provides advice, technical support, and recommends proposals to assist the FCC in its preparation for World Radiocommunication Conferences, which occur every three to four years under the auspices of the International Telecommunication Union. The last World Radiocommunication Conference (WRC-15) was held from November 2-27, 2015. The next World Radiocommunication Conference will be held in 2019 (WRC-19). The WRC-19 Advisory Committee will address a broad range of topics concerning all steps necessary to assemble information to provide advice, technical analyses, and specific recommended proposals on matters relating to WRC-19 and future related conferences, with particular emphasis on the following: WRC Agenda Item 1.1: to consider an allocation of the frequency band 50-54 MHz to the amateur service in Region 1, in accordance with Resolution 658 (WRC-15); WRC Agenda Item 1.2: to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with Resolution 765 (WRC-15); WRC Agenda Item 1.3: to consider possible upgrading of the secondary allocation to the meteorological- satellite service (space-to-Earth) to primary status and a possible primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz, in accordance with Resolution 766 (WRC-15);WRC Agenda Item 1.4: to consider the results of studies in accordance with Resolution 557 (WRC-15), and review, and revise if necessary, the limitations mentioned in Annex 7 to Appendix 30 (Rev.WRC-12), while ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and the List and the future development of the broadcasting-satellite service within the Plan, and existing and planned fixed-satellite service networks; WRC Agenda Item 1.5: to consider the use of the frequency bands 17.7-19.7 GHz (space-to- Earth) and 27.5-29.5 GHz (Earth-to-space) by earth stations in motion communicating with geostationary space stations in the fixed-satellite service and take appropriate action, in accordance with Resolution 158 (WRC-15); WRC Agenda Item 1.6: to consider the development of a regulatory framework for non-GSO FSS satellite systems that may operate in the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space), in accordance with Resolution 159 (WRC-15);WRC Agenda Item 1.7: to study the spectrum needs for telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions, to assess the

suitability of existing allocations to the space operation service and, if necessary, to consider new allocations, in accordance with Resolution 659 (WRC-15); WRC Agenda Item 1.8: to consider possible regulatory actions to support Global Maritime Distress Safety Systems (GMDSS) modernization and to support the introduction of additional satellite systems into the GMDSS, in accordance with Resolution 359 (Rev.WRC-15);WRC Agenda Item 1.9: to consider, based on the results of ITU-R studies:WRC Agenda Item 1.9.1: regulatory actions within the frequency band 156-162.05 MHz for autonomous maritime radio devices to protect the GMDSS and automatic identifications system (AIS), in accordance with Resolution 362 (WRC-15);WRC Agenda Item 1.9.2: modifications of the Radio Regulations, including new spectrum allocations to the maritime mobile-satellite service (Earth-to-space and space-to-Earth), preferably within the frequency bands 156.0125-157.4375 MHz and 160.6125-162.0375 MHz of Appendix 18, to enable a new VHF data exchange system (VDES) satellite component, while ensuring that this component will not degrade the current terrestrial VDES components, applications specific messages (ASM) and AIS operations and not impose any additional constraints on existing services in these and adjacent frequency bands as stated in recognizing d) and e) of Resolution 360 (Rev.WRC-15);WRC Agenda Item 1.10: to consider spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System (GADSS), in accordance with Resolution 426 (WRC-15); WRC Agenda Item 1.11: to take necessary actions, as appropriate, to facilitate global or regional harmonized frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations, in accordance with Resolution 236 (WRC-15); WRC Agenda Item 1.12: to consider possible global or regional harmonized frequency bands, to the maximum extent possible, for the implementation of evolving Intelligent Transport Systems (ITS) under existing mobile-service allocations, in accordance with Resolution 237 (WRC-15);WRC Agenda Item 1.13: to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238 (WRC-15); WRC Agenda Item 1.14: to consider, on the basis of ITU-R studies in accordance with Resolution 160 (WRC-15), appropriate regulatory actions for high-altitude platform stations (HAPS), within existing fixed-service allocations; WRC Agenda Item 1.15: to consider identification of frequency bands for use by administrations for the land- mobile and fixed services applications operating in the frequency range 275-450GHz, in accordance with Resolution 767 (WRC-15);WRC Agenda Item 1.16: to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution 239 (WRC-15); WRC Agenda Item 2: to examine

the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-15), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution 27 (Rev.WRC-12); WRC Agenda Item 3: to consider such consequential changes and amendments to the RadioRegulations as may be necessitated by the decisions of the conference; WRC Agenda Item 4: in accordance with Resolution 95 (Rev.WRC-07), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation; WRC Agenda Item 5: to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention; WRC Agenda Item 6: to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference; WRC Agenda Item 7: to consider possible changes, and other options, in response to Resolution86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution 86 (Rev.WRC-07), in order to facilitate rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit; WRC Agenda Item 8: to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC-07); WRC Agenda Item 9: to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention: WRC Agenda Item 9.1: on the activities of the Radiocommunication Sector since WRC-15; WRC Agenda Item 9.1.1: Resolution 212 (Rev.WRC-15) Implementation of InternationalMobile Telecommunications in the frequency bands 1 885-2 025 MHz and 2 110 2 200 MHzWRC Agenda Item 9.1.2: Resolution 761 (WRC-15) Compatibility of International MobileTelecommunications and broadcasting-satellite service (sound) in the frequency band 1 452-1492 MHz in Regions 1 and 3 WRC Agenda Item 9.1.3: Resolution 157 (WRC-15) Study of technical and operational issues and regulatory provisions for new non-geostationary-satellite orbit systems in the 3 700-4 200MHz, 4 500-4 800 MHz, 5 925-6 425 MHz and 6 725-7 025 MHz frequency bands allocated to the fixed-satellite serviceWRC Agenda Item 9.1.4: Resolution 763 (WRC-15) Stations on board sub-orbital vehiclesWRC Agenda Item 9.1.5: Resolution 764 (WRC-15) Consideration of the technical and regulatory impacts of referencing Recommendations ITU R M.1638 1 and ITU R M.1849 1 in Nos. 5.447F and 5.450A of the Radio RegulationsWRC Agenda Item 9.1.6: Issue 1 in the Annex to Resolution 958 (WRC-15) Studies concerning Wireless Power Transmission (WPT) for electric vehicles: a) to assess the impact of WPT for electric vehicles on radiocommunication services; b) to study suitable harmonized

frequency ranges which would minimize the impact on radiocommunication services from WPT for electrical vehicles.WRC Agenda Item 9.1.7: Issue 2 in the Annex to Resolution 958 (WRC-15) Studies to examine: a) whether there is a need for possible additional measures in order to limit uplink transmissions of terminals to those authorized terminals in accordance with No. 18.1; b) the possible methods that will assist administrations in managing the unauthorized operation of earth station terminals deployed within its territory, as a tool to guide their national spectrum management programme, in accordance with Resolution ITU R 64 (RA 15).WRC Agenda Item 9.1.8: Issue 3 in the Annex to Resolution 958 (WRC-15) Studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work.WRC Agenda Item 9.1.9: Resolution 162 (WRC-15) Studies relating to spectrum needs and possible allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space)WRC Agenda Item 9.2: on any difficulties or inconsistencies encountered in the application of the Radio Regulations\*; and WRC Agenda Item 9.3: on action in response to Resolution 80 (Rev.WRC-07);WRC Agenda Item 10: to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention (see e.g., Resolution 810 (WRC-15)).

## 20b. How does the Committee balance its membership?

As provided in the Committee's Membership Balance Plan, the FCC released a Public Notice to solicit candidates from interested parties and encouraged membership applications from many groups. It is anticipated that the Committee will be comprised of individuals from both the public and private sectors with specific interest, expertise or experience as it relates to the questions before the Committee, including wireless communications infrastructure and equipment, telecommunications, broadcasting, and other telecommunications services, consumer advocacy and underserved populations (e.g. persons living in rural areas and tribal communities). Since the Committee's recommendations will affect international frequency spectrum, the FCC will strive to develop Committee membership that represents views across the industry. Additional membership considerations may include individuals who possess expertise valuable to the Committee's work, but who do not represent an organization, institution, or entity. Membership balance is not static, as we expect that the expertise or experience relevant to the mission and function of this Committee may change over time, depending on the work of the Committee. The Committee structure will include Informal Working Groups

(IWGs) on which subject matter experts from interested organizations including maritime, aeronautical, radar, terrestrial and mobile services will review and make recommendations regarding those WRC-19 agenda items affecting their industry segment. After we review the applications for membership, we will appoint in a representative capacity those individuals who are intended to represent the views of their employers or the institutions or groups on which they serve. On the other hand, to the extent that the individual is appointed for the person's specific expertise and knowledge, rather than to represent the views of an employer or other entity, such an individual would be appointed as a Special Government Employee.

## 20c. How frequent and relevant are the Committee Meetings?

The informal and ad hoc working groups meet several times a year, with meeting frequency increasing as a World Radiocommunication Conference approaches. The Committee as a whole meets when the work product of the working groups is mature for consideration for approval or when other business, such as the scheduling or occurrence of significant international preparatory meetings, requires it to meet. The Committee is an essential component of the United States' preparations for WRC-19.

## 20d. Why can't the advice or information this committee provides be obtained elsewhere?

The Committee offers the only open forum where competing spectrum users develop proposals in cooperation with FCC and other government staff. This group prepares studies, preliminary views, proposals, and other international contributions in real time so that it can respond to technical developments, international meeting outcomes, and foreign proposals and positions. The Commission does not have all of the expertise nor the resources necessary to competently, timely and effectively accomplish this task without direct and ongoing input from the experts from potentially affected industries and other users.

## **20e.** Why is it necessary to close and/or partially closed committee meetings?

#### 21. Remarks

None

## **Designated Federal Officer**

Michael Mullinix Electronics Engineer

 Committee Members
 Start
 End
 Occupation

 Aliani, Maqbool
 04/09/2018
 11/01/2019
 Ligado Networks

 Allison, Audrey
 04/09/2018
 11/01/2019
 The Boeing Company

 Alvarez, Amy
 04/09/2018
 11/01/2019
 AT&T

Member Designation Representative Member Representative Member Representative Member

Amodio, Pasquale			Senior Director	Representative Member
Baruch, Stephen			New Wave Spectrum Partners LLC	Representative Member
Baum, Kimberly			SES Americom Inc.	Representative Member
Blum, Jeffrey		11/01/2019		Representative Member
Briskman, Robert		11/01/2019		Representative Member
Caldwell, Winston	04/09/2018		21st Century Fox, Inc.	Representative Member
Case, David	04/09/2018	11/01/2019	Cisco Systems, Inc.	Representative Member
Ciaudelli, Joe	04/09/2018		Sennheiser	Representative Member
Cooper, Patricia	04/09/2018	11/01/2019	Space Exploration Technologies Corp.	Representative Member
Creeser, Giselle	04/09/2018	11/01/2019	Inmarsat	Representative Member
Daum, Michael	04/09/2018	11/01/2019	Microsoft Corporation	Representative Member
DeGuzman, Oscar	04/09/2018	11/01/2019	Intelsat	Representative Member
Dockemeyer, Joseph	04/09/2018	11/01/2019	Aptiv	Representative Member
Dunn, Dan	04/09/2018	11/01/2019	Keysight Technologies	Representative Member
Einolf, Jr., Charles	04/09/2018	11/01/2019	CBS Corporation	Representative Member
Entz, Kyle	04/09/2018	11/01/2019	Sprint Corporation	Representative Member
Fenkell, Max	04/10/2018	11/01/2019	Aerospace Industries Association	Representative Member
Fiore, Louis	04/09/2018	11/01/2019	Chair, Alarm Industry Communications Committee	Representative Member
Hogan, Cody	04/09/2018	11/01/2019	Technology and Engineering Policy	Representative Member
Hutchison, Kris	04/09/2018	11/01/2019	Aviation Spectrum Resources, Inc.	Representative Member
Jansky, Don	06/01/2018	11/01/2019	•	Representative Member
John, George			Spire Global, Inc.	Representative Member
Keane, William	04/09/2018		Duane Morris LLP	Representative Member
Koppel, Robert	04/09/2018		Lukas, Nace, Gutierrez & Sachs	Representative Member
Kotler, Scott	04/09/2018		Lockheed Martin	Representative Member
Kubik, Robert	04/09/2018		Samsung Electronics America	Representative Member
Lawrence, Tatiana	04/09/2018		Iridium Communications, Inc.	Representative Member
Lewis, Michael	04/09/2018		DLA Piper LLP	Representative Member
Manner, Jennifer			EchoStar Corporation	Representative Member
Marcus, Michael	04/09/2018		Marcus Spectrum Solutions, LLC	Representative Member
Markle, Robert	04/09/2018		Radio Technical Commission for Maritime Services	Representative Member
			Verizon Communications, Inc.	Representative Member
Martinkovics, Leslie	04/09/2018		,	•
Miller, Jennifer	04/10/2018		General Counsel	Representative Member
Moorut, Prakash		11/01/2019		Representative Member
Murphy, Christopher		11/01/2019		Representative Member
Neumann, Mark		11/01/2019	• •	Representative Member
Power, Thomas		11/01/2019		Representative Member
Racek, Mark	04/09/2018	11/01/2019		Representative Member
Rawat, Veena	04/09/2018	11/01/2019		Representative Member
Royblat, Alexander	04/09/2018		Wi-Fi Alliance Association	Representative Member
Rush, Charles	05/01/2018		Global Mobile Suppliers Association (GSA)	Representative Member
Schoenthal, Gerhard	04/09/2018		Virginia Diodes, Inc.	Representative Member
Scott, Andy	04/09/2018	11/01/2019	National Cable & Telecommunications Association	Representative Member
Shields, T. Russell	04/09/2018		Ygomi LLC	Representative Member
Shuman, Mariah	04/09/2018	11/01/2019	OneWeb	Representative Member
Siverling, Jonathan	04/09/2018	11/01/2019	ARRL (American Radio Relay League)	Representative Member
Stancavage, R. Jayne	04/09/2018		Intel Corporation	Representative Member
Strafford, Timothy	04/09/2018	11/01/2019	Association of American Railroads	Representative Member
Stroup, Tom	09/19/2018	11/01/2019	Satellite Industry Association	Representative Member
Tseytlin, Michael	04/09/2018	11/01/2019	Facebook, Inc.	Representative Member
Weinreich, David	04/09/2018	11/01/2019	Globalstar, Inc.	Representative Member
Weller, Robert	04/09/2018	11/01/2019	National Association of Broadcasters	Representative Member
Zoller, Julie	04/09/2018	11/01/2019	Omnispace	Representative Member

**Number of Committee Members Listed: 56** 

### **Narrative Description**

The committee's work in drafting U.S. preliminary views and proposals for World Radiocommunication Conferences furthers the FCC's mission to ensure that the American people have available – at reasonable costs and without discrimination – rapid, efficient, nation- and world-wide communication services. Its work enhances the preparation for, and the outcome of, these conferences by facilitating early discussions on the issues on the conference agenda at bilateral, regional, and ITU-R preparatory meetings. This in turn fosters the ultimate adoption of international regulatory policies that support the FCC's mission to promote competition, innovation and investment in global radiocommunication services (e.g., broadband) and make more efficient and effective use of the spectrum by encouraging the transition to digital services and other innovative spectrum efficient technologies.

## What are the most significant program outcomes associated with this committee?

Checked if Applies

Onocitod ii Applico
✓
✓
✓
✓
✓
✓
✓

#### **Outcome Comments**

With the next World Radiocommunication Conference (WRC-19) scheduled for 2019, the focus in FY18 was on rechartering and preparing draft proposals in order to facilitate discussion at regional and international preparatory meetings with the objective of achieving early international support that will improve the likelihood of our success at WRC-19.

## What are the cost savings associated with this committee?

	Checked if Applies
None	
Unable to Determine	✓
Under \$100,000	
\$100,000 - \$500,000	
\$500,001 - \$1,000,000	

Cost Savings Commonts	
Cost Savings Other	
Over \$10,000,000	
\$5,000,001 - \$10,000,000	
\$1,000,001 - \$5,000,000	

### **Cost Savings Comments**

NA

What is the approximate <u>Number</u> of recommendations produced by this committee for the life of the committee?

476

#### **Number of Recommendations Comments**

The Committee has produced approximately 476 recommendations which includes 184 preliminary views and 292 proposals. The committee held more than 52 meetings since it began its work. The FCC has generally supported most of the committee's recommendations that were produced.

What is the approximate <u>Percentage</u> of these recommendations that have been or will be <u>Fully</u> implemented by the agency?

75%

### % of Recommendations Fully Implemented Comments

The percentage above represents the total number of the committee's recommendations that were fully accepted by the FCC, the National Telecommunications and Information Administration (NTIA), and the Department of State. They became U.S. Preliminary Views and Draft Proposals that were presented at the meetings of Permanent Consultative Committee II on Radiocommunications including Broadcasting under the auspices of the Inter-American Telecommunications Commission (CITEL) and became part of regional common proposals or U.S. Proposals that were submitted to the International Telecommunication Union (ITU) for consideration at WRCs.

What is the approximate <u>Percentage</u> of these recommendations that have been or will be <u>Partially</u> implemented by the agency?

100%

## % of Recommendations Partially Implemented Comments

All of the committee's recommendations in this category were at least partially accepted by the FCC, the National Telecommunications and Information Administration (NTIA), and

the Department of State. They were incorporated into the U.S. Preliminary Views and Draft Proposals that were presented at the meetings of CITEL. They became regional common proposals or U.S. Proposals that were submitted to the International Telecommunication Union (ITU) for consideration at WRCs.

Does the agency provide the committee with feedback regarding actions taken t
implement recommendations or advice offered?

Yes	✓	Nο	Not A	pplicable	
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## **Agency Feedback Comments**

Feedback is provided by the DFO or other agency representatives at the meetings of the committee. Public notices of the committee's recommendations are issued together with the FCC's views as to the recommendations that it can support and those that may be inconsistent with its policy. Each public notice and the public comments thereto are also available to the public and the committee at the FCC's Reference Information Center and in FCC Docket No. 16-185 that is accessible via the Internet.

## What other actions has the agency taken as a result of the committee's advice or recommendation?

	Checked if Applies
Reorganized Priorities	<b></b>
Reallocated resources	<b>×</b>
Issued new regulation	<b>×</b>
Proposed legislation	
Approved grants or other payments	
Other	✓

#### **Action Comments**

The committee's recommendations receiving the support of the FCC, the National Telecommunications and Information Administration (NTIA), and the Department of State become part of the United States Preliminary Views and Draft Proposals that are presented at regional and international preparatory meetings held in advance of the 2019 World Radiocommunication Conference. At these meetings, the U.S. contributions are discussed with other administrations with a view of gaining early international support. Regional common proposals and administrations' proposals are considered at the 2019 World Radiocommunications Conference (WRC-19). If these proposals are adopted at WRC-19, they become a part of the international Radio Regulations that have treaty status and will eventually be implemented in the FCC Rules and Regulations.

Grant Review Comments	
NA	
How is access provided to the information for the	Committee's documentation?
	Checked if Applies
Contact DFO	✓
Online Agency Web Site	✓
Online Committee Web Site	
Online GSA FACA Web Site	✓
Publications	✓
Other	✓
Access Comments	
The Committee's documentation is also made available	e to the public at the FCC's

Is the Committee engaged in the review of applications for grants?

No

Reference Information Center.